

**UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
RENTON, WASHINGTON 98055-4056**

In the matter of the petition of

Flight Structures, Inc.,

for an exemption from §§ 25.785(d), 25.813(b),
25.857(e), and 25.1447(c)(1) & (c)(3)(ii) of Title
14, Code of Federal Regulations

Regulatory Docket No. 28257

GRANT OF EXEMPTION

By letter A030LTR, dated June 30, 2000, Mr. Henry P. Duvall, Director of Certification, Flight Structures, Inc., 4407 172nd Street NE, Arlington, Washington, 98223, petitioned for an amendment to Exemption No. 6178A, from the requirements of §§ 25.785(d), 25.813(b), 25.857(e), and 25.1447(c)(1) & (c)(3)(ii), of Title 14, Code of Regulations (14 CFR) for a passenger to freighter conversion of an Airbus Model A300-B4-203 airplane. The petition requests that the exemption be amended to explicitly permit carriage of air traffic controllers and technical representatives of the manufacturer in addition to those currently permitted. This exemption, if granted, would allow the carriage of air traffic controllers and technical representatives of the manufacturer on the main deck in addition to a maximum of three flight deck occupants, for a total occupancy of nine. It should be noted that, just after this request was submitted, Exemption No. 6178A was amended by Exemption No. 6178B to add certain models in response to an earlier request.

The petitioner requests relief from the following sections:

Section 25.785(d) at Amendment 25-32 requires, in pertinent part, that there be a firm handhold to enable occupants to steady themselves when using the aisles in moderately rough air.

Section 25.813(b) at Amendment 25-32 requires, in pertinent part, that each passenger emergency floor level exit equipped with an assist means have an assist space next to it.

Section 25.857(e) at Amendment 25-32 requires, in pertinent part, that when a Class E cargo compartment is installed on the airplane, the airplane is used for carriage of cargo only.

Section 25.1447(c)(1) at Amendment 25-41 requires, in pertinent part, that oxygen masks be automatically presented to each seated occupant, with manual backup, and that there be ten percent more oxygen masks than occupants.

Section 25.1447(c)(3)(ii) at Amendment 25-41 requires two oxygen masks, similar to those required above, in each lavatory.

Related Sections of the Federal Aviation Regulations (FAR)

Section 121.583(a) contains a listing of categories of the people who may be carried aboard an airplane in part 121 service without complying with all the passenger-carrying airplane requirements of part 121.

Section 121.547(c) permits air traffic controllers and technical representatives of the manufacturer (of the airplane or its components) to be carried on the flight deck without having a separate seat in the passenger cabin.

The petitioner's supportive information is as follows:

"Flight Structures, Incorporated, 4407 172nd Street N. E., Arlington, Washington 98223, USA, hereafter designated as 'FSI', hereby petitions the Federal Aviation Administration (FAA) for an amendment to Exemption No. 6178A [and Exemption No. 6178B] from the requirements of §§ 25.785(d), 25.813(b), 25.857(e), and 25.1447(c)(1) & (c)(3)(ii), of Title 14, Code of Regulations (14 CFR)."

"This request for amendment of the referenced exemptions is to grant relief on the categories specified in FAR 121.583(a)(1) through (7), of the FAR's to the extent necessary to permit air traffic controllers and technical representatives to be added to the list of persons authorized to ride in the cockpit observer's seat and courier area (aft of cockpit) on the Airbus Model A300-B4-103, -203, aircraft operating under part 121 without complying with the passenger carrying requirement of part 121.

"The following information is provided in support of this petition for amendment in accordance with FAR 11.25."

"DESCRIPTION OF THE AFFECTED AIRPLANE (FAR 11.25(b)(4))

"The Airbus A300-B4-103, 203 model is a pressurized, transport category airplane powered by two turbofan engines, and is included on the United States (U. S.) Type Certificate No. A35EU, first issued May 30, 1974. The A300-B4-103, -203 passenger airplane is being converted to an all freighter airplane under STC Project No. ST1384SE-T and has an all-cargo main deck configuration."

"NATURE AND EXTENT OF THE RELIEF SOUGHT (FAR 11.25(b)(4))

"The main purpose of this petition is to grant an air traffic controller admittance to the flight deck of this all-cargo aircraft, and a technical representative of the manufacturer of the aircraft, or its components, admittance when the duties of that representative are directly related to in-flight monitoring of aircraft equipment or operating procedures as necessary to perform his/her duties. The relief sought is to amend the exemption granted to include the air traffic controllers and technical representatives as approved type of occupants.

"SUPPORTING ARGUMENTS INCLUDING EQUIVALENT SAFETY (FAR 11.25(b)(5))

"The issuance of Exemption No. 6178 limits the type of occupant that can be carried to FAR 121.583(a)(1) through (7) and requires that the FAA Approved Flight Manual Supplement list the categories of those permitted to occupy the all-cargo aircraft. However, this does not include authorization for both air traffic control personnel and manufacturer technical representatives to ride in the cockpit observer's seat unless the cargo carrier meets the necessary passenger-carrying requirements of the regulations. The FAA previously granted Air Transport Association of America (ATA) the extent necessary to permit air traffic controllers and technical representatives to be added to the list of persons authorized to ride in the cockpit observers seat of all-cargo aircraft operating under part 121 without complying with the passenger carrying requirements of part 121. The ATA exemption was granted on June 24, 1992, Exemption No. 5562, Regulatory Docket No. 26914 and later FAA approved amendments for time-extensions.

"The FAA's analysis/summary included the following statements: 'The FAA believes that the drafters of the FAR did not intend to differentiate between the cockpits of all-cargo aircraft and passenger aircraft. The FAA has announced its intent to correct this difference when time and resources permit. Until that rulemaking can be completed it's believed that this exemption would be in the public interest and would not derogate safety.'

"The following arguments were submitted in support of the original petition for Amendment 6178 and are restated for the record:

"FAR 25.813(b)

"The assist space adjacent to the emergency exits required by FAR 25.813(b) for assisting passengers in evacuating is not necessary as the considered categories of personnel will be trained for door operation and autonomous evacuation. Both LH and RH passenger doors are equipped with self-deploying escape slides.

"FAR 25.1447

"The requirements of FAR 25.1447(c)(1) and (c)(ii) to have automatic presentation of oxygen dispensing units before the cabin pressure altitude exceeds 15,000 ft. are compensated by the fact that the users will have knowledge of equipment location and utilization. The oxygen masks provided are quick donning masks with regulators and are immediately available to seated occupants.

"FAR 25.1447(c)(1) requires an excess of ten percent of the oxygen dispensing units required. The rationale for this rule is to allow use by cabin attendants moving along the aisles, and to improve the probability that each passenger will easily be able to reach one mask. Neither of these factors applies to the considered configuration.

"FAR 25.785(d)

"FAR 25.785(d) requires handgrips installed when seatbacks do not allow for a firm handhold. Such handgrips are mainly intended for the use of cabin attendants who need to frequently walk along the aisles. Occupants will be instructed to remain seated with seat belt fastened as far as practical. There should be limited movement of occupants during turbulence.

"PUBLIC INTEREST [FAR 11.25 (b)(5)]

"FSI maintains that its request is in the public interest for several reasons. Exposing air traffic controllers to actual flight operations is excellent skill reinforcement as air traffic controllers learn about pilot workload and flight operations from the user's perspective. It will have a beneficial effect of enabling air traffic controllers to do their jobs in a safer and more efficient manner with a first hand exposure to pilot workload and flight operations from the user's perspective. The technical representatives need to be aboard the aircraft to observe in-flight performances of their equipment, and observe any problems or operational constraints that may in any way affect the design, installation or operations associated with the airplane. The public interest will be served by better equipment, safer flying, and more efficient operations for the shipping and traveling public. "

The FAA finds, for good cause, that action on this petition should not be delayed by publication and comment procedures for the following reasons: (1) a grant of exemption would not set a precedent in that it merely clarifies certain persons as supernumeraries, in light of other regulatory interpretations; and (2) no comments were received in response to the original petition or its recent amendment.

The FAA's analysis/summary is as follows:

Flight Structures, Inc. has requested that Exemption No. 6178 be amended to include explicit provision for carriage of air traffic controllers and technical representatives of the manufacturer. The exemption currently lists persons as defined in § 121.583(a)(1)-(7) as permissible supernumeraries. Section 121.547 addresses admittance to the flight deck of air traffic controllers and technical representatives. In summary, this section permits those persons to sit in a flight deck seat without having a separate seat in the passenger compartment. The FAA issued an interpretation on September 17, 1990, concluding that § 121.547 only applied to passenger carrying airplanes. Therefore, the provisions of § 121.547 applying to air traffic controllers and technical representatives of the manufacturer would need to be repeated in an exemption to § 121.583, if those persons are to be carried on cargo-only airplanes.

Exemption No. 6178 grants relief from, among others, the requirements of § 25.857(e), which permits carriage of only cargo when a Class E cargo compartment is installed on the airplane. Class E cargo compartments are usually remote from the flight deck and encompass the entire interior of the airplane. Fires that might occur in this type of cargo compartment are controlled by starving the fire of oxygen. This is accomplished by depressurizing the airplane and maintaining a cabin altitude that will not support combustion. For this reason, only crewmembers occupying the flight deck are normally permitted on board such airplanes. As noted in the petition, the FAA has already granted such relief for the A300-B4-100 and -200 series airplanes, for carriage of supernumeraries. In the context of the exemption, supernumeraries are defined as those persons listed under § 121.583(a)(1)-(7).

As noted in Exemption No. 6178, 14 CFR part 25 does not provide for supernumeraries. Occupants of the airplane are categorized as either passengers or crew. In granting Exemption No. 6178, the FAA has effectively permitted installation of a Class E cargo compartment on an airplane that carries "passengers," albeit with strict limitations. In this regard, it is arguable that the requirements of § 121.547 would apply, since the airplane is "passenger carrying." However, previous discussion of this issue in Exemption No. 5562 issued to the Air Transport Association have indicated that the provisions of § 121.547 do not provide relief from *passenger carrying requirements* (as does §121.583), and so an exemption from those requirements would still be necessary. While *this* grant of exemption

addresses the modification to the airplane by the petitioner with respect to part 25, it does not address the operator's use of the airplane under part 121. Therefore, the relief requested by the petitioner, while necessary, is not sufficient to permit operation, and an exemption under the operating rules is still required.

In consideration of the foregoing, I find that a grant of exemption is in the public interest and will not affect the level of safety provided by the regulations. Therefore, pursuant to the authority contained in 49 U.S.C. 40113 and 44701, delegated to me by the Administrator, Flight Structures, Inc., is hereby granted an exemption from 14 CFR §§ 25.785(d), 25.813(b), 25.857(e), and 25.1447(c)(1) & (c)(3)(ii). The petition is granted to the extent required to permit supplemental type certification of Airbus Model A300-B4-100 series and -200 series passenger-to-freighter airplane conversions, with provisions for the carriage of air traffic controllers and technical representatives of the manufacturer (of the airplane or its components) when the airplane is equipped with two floor-level exits with escape slides, within the occupied main deck area.

All other provisions of Exemption No. 6178, 6178A and 6178B, together with associated conditions and limitations, remain the same and are applicable to this amendment.

This amendment is part of, and shall be attached to, Exemption No. 6178.

Issued in Renton, Washington, on February 20, 2001.

/s/ Ali Bahrami
Acting Manager
Transport Airplane Directorate
Aircraft Certification Service, ANM-100